ABSTRACT OF THE DISCLOSURE

A decoder and a decoding method can realize a high speed decoding operation without degrading the quality of decoding. The decoder comprises a path selecting section 130 for obtaining at least two or more paths showing a high likelihood out of the at least three or more paths for getting to each state and selecting the maximum likelihood path from the obtained at least two or more paths and an absolute value selecting section 160 for selecting the absolute value of the difference between the data corresponding to the maximum likelihood path and the data corresponding the second maximum likelihood path. The path selecting section 130 compares data P, Q, R, S for dimension and select the data corresponding to the maximum likelihood path by promoting an operation comparable to a tournament of competitors of the data P, Q, R, S. The absolute value data selecting section 160 determines the dimensional relationship of the absolute value data computed by absolute value computation circuits 161 through 166 on the basis of the information on the outcome of comparison obtained by comparator circuits 133 through 136 of the path selecting section 130.